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Eco-Friendly Cleaning Gets The Green Light

***How a
once-skeptical
industry is
embracing green
housekeeping***

— By Kristine Hansen •
Environmental Writer

When asked why on earth a company would switch to using “green” cleaning chemicals, Barry Dimson, co-owner of Philadelphia’s Sheraton Rittenhouse, pulls out the Material Safety Data Sheet (MSDS) for a window cleaner used at most hotels. Reading from it, he cringes at the words butoxyethanol and propanol and quotes a sentence about health hazards such as corneal eye damage and lung damage — possible if the product penetrates the skin, or is exhaled. The problem is that hoteliers buy into its rock-bottom price and don’t read the MSDS, Dimson says.

As the nation’s first environmentally smart hotel, Sheraton Rittenhouse is setting a precedent, and is part of an industry keen on cleaning for health, and for the environment. The hotel uses 100 percent organic cotton bed-sheets, chemical-free laundry cycles, energy-efficient light bulbs, and palm trees in the lobby with a superb oxygenation rate. The lobby’s reception desk is made from recycled soda bottles. Cleaning chemicals are all non-toxic, water-based, hypoallergenic and biodegradable.

The Sheraton also is a member of the Green Hotels Association, which lists approximately 200 hotels as members. A campaign that put cards in hotel rooms, urging the reuse of towels, put the association on the map in 1993. The concept reportedly saves a hotel \$.50 per day per occupied room.

The exception or the rule?

Is green cleaning gaining in popularity, and reshaping business plans? “Absolutely. The momentum continues to grow. There’s so much inertia to overcome and build awareness. But now the ball is definitely rolling and at increasing speed,” says Stephen Ashkin,

president of Healthy Housekeeping Solutions, and an industry consultant who has been involved with the green cleaning movement for quite some time.

Hotel guests' needs — which include avoiding allergic reactions to chemicals, and an interest in an environmentally friendly lifestyle — are what convinced hoteliers to plunge into green cleaning. "We hear more and more from chemically sensitive people. But the things that they need are the things we all need, which is basically cleaner air," says Patricia Griffin, Green Hotels Association president and founder.

The No. 1 reason for green cleaning is for health. It's not to save money or anything else, she says. Though managers have found some changes can cut costs.

Also, eco-friendly cleaning helps preserve employee health, which is why many facility and housekeeping managers are urging a switch to green-cleaning concepts. They want to put a stop to employee complaints of nausea, headaches, eye troubles or skin troubles; often a result of long hours spent spraying and wiping chemicals, loading clothes into the laundry, or performing other housekeeping tasks. Reportedly, the average amount of time lost when a janitor suffers an injury is 18 hours and such incidents cost the employer an average of \$615.

Green-cleaning products also lead to lower regulatory costs, because managers have fewer toxic chemicals to track and fewer chemical-related injuries, says Ashkin.

Multiple markets sign on

The hotel industry isn't the only business group buying into the green-cleaning trend; add medical, educational and government-operated facilities to the list.

The cities of Santa Monica, Calif.; Seattle; and St. Paul, Minn., have green-cleaning programs in place. Santa Monica's Sustainable City Program was unveiled in September 1994 after custodians tested non-toxic cleaning products. Fifteen cleaning products were substituted with environmentally friendly ones, saving the city 5 percent of supply costs annually.

The Commonwealth of Pennsylvania hired Green Seal last summer to write a green-cleaning manual which it is testing in select government buildings during 2002. Green Seal is a Washington, D.C.-based non-profit environmental group in its 13th year of testing

and recommending environmentally friendly consumer products. It looks at areas such as packaging, transportation, extraction and ingredients before awarding a Green Seal of Approval.

The state of Minnesota's Office of Environmental Assistance also launched an eight-month pilot project to test cleaning products for efficiency through the past winter.

And, the federal government has followed suit. The Department of Interior (DOI) awarded a \$6.258 million green cleaning contract for its combined 1 million square feet in two buildings in August of 1999.

In the healthcare sector, Hospitals for a Healthier Environment (H2E) was started voluntarily in 1998 by four associations — the Environmental Protection Agency, the American Hospitals Association, the American Nursing Association, and Healthcare Without Harm. Hospitals are the fourth largest producer of mercury-releasing agents, and produce 1 percent of the country's solid waste, says Chen Wen, EPA's H2E coordinator.

"The big picture of H2E is to help hospitals become better environmental standards," says Wen, adding that two goals include using environmentally preferable products and reducing mercury waste by 2005.

Weston Thiss, president of the American Society for Healthcare Environmental Services, says green cleaning is fast becoming popular in the healthcare industry. "There's a real focus on reducing the water-stream. I think the next step after that is what green chemicals we're using," he says.

In some cases using less chemicals is just as important as changing which kinds are used. Three hospitals in Northern California — Mercy Hospital, UC Davis Medical Center and Eaton Medical Center — were picked for an EPA pilot project using microfiber mopping techniques that promote the use of less chemicals

The hospitals liked the mopping systems because they involved less liquid and less lifting, and after the pilot project, two adopted the equipment into their operations, says Eileen Sheehan, pollution prevention coordinator in EPA's San Francisco office.

"It seems to be a win-win for everyone, not to mention patients who aren't exposed to as many chemicals," she adds.

Sheraton Rittenhouse has eliminated laundry detergent use by switching to a unique ozonization process to clean linens. Now oxygenated cold water and a 22-minute wash cycle clean laundry.

“It pays itself back in the savings of water, energy and detergent,” says Dimson, adding that the equipment is not cheap but can be leased.

“You can be Hilton and be environmentally committed. You can be Wal-Mart or Jiffy Lube and be environmentally committed. It doesn’t matter who you are,” says Tony Schifano, president and founder of Wasteworks, an environmental consulting company that works with hospitals.

Among Shifano’s 300 clients are Yale New Haven Hospital, New York University Medical Center, The Med in Memphis, Mainline Health, and Naples Community Health Care.

And it doesn’t matter where managers start their environmentally friendly efforts, he adds. There are many areas where progress can be made in any organization.

Recycling paper — the most common environmental move in commercial office buildings — is just the tip of the iceberg regarding ways companies can make a difference, says Shifano. His company helps analyze an organization to see what they buy and what they utilize to find the most effective changes it can make.

“Here we’re looking at an initiative that can really raise up the image of janitors, get them out of the basement and make them a champion,” says Schifano. “Anybody who doesn’t look at this as a golden opportunity is really asleep. [They] have a small miracle right in their lap that they’re not completely aware of.”

Wasteworks carefully consulted Cooley Dickerson, a small community hospital in Massachusetts, into becoming a green hospital. By changing its purchasing mentality, it garnered community appreciation and became a leader in environmental awareness, says Schifano.

Some of Wasteworks environmental initiatives include composting, using less Styrofoam and more recycled materials, looking at mercury-free thermometers and lighting, and considering environmentally friendly formaldehydes and paint thinners.

Schifano says he regularly talks with large product manufacturers

about creating and using more sensitive cleaning products for the environment, and most have been receptive.

Making the transition

But how do you know if a product is truly green? The fear of latching on to a product that's mistakenly thought to be green bugs the minds of housekeeping decision makers.

"There are so many cleaning products on the market that are just terrifically unhealthy to use, and to breathe," says Griffin.

"If someone comes in and says they've got a miracle cleaning product, they should be suspicious," Ashkin advises.

First, product decision-makers must realize that when harmful chemicals "off-gas" or "bleed" into the air, they spread rapidly, says Dimson, who founded EcoSmart Healthy Properties LLC in 1995 in New York. While the Federal Drug Administration does not label cleaning chemicals as harmful, no research exists about what happens to chemicals when they hit the air and are inhaled, he says.

"No company tests for somebody who uses cleaning chemicals that much," says Griffin, referring to room attendants or housekeepers tasked with using the products. She advocates using the least possible amount of the cleaning product.

The city of Seattle used to focus on the lowest price when addressing cleaning, but now managers look at the total picture and incorporate more environmental values, says Ulla Johnson, Copernicus project lead for the city of Seattle. (Copernicus is a program advocating green-cleaning products in all city buildings and departments.) Ozone-depleting compounds; toxic bio-cumulative chemicals; carcinogens, mutagens and teratogens; low-volatile organic compounds; and hazardous waste all are avoided.

Johnson estimates that a move to green chemicals costs the city of Seattle 60 percent less per usable gallon.

The EPA offers a guide called "Greening Your Purchase of Cleaning Products" — which can be downloaded from the EPA's [Web site](#).

The agency also offers an interactive tool on its Web site, where housekeeping decision makers can sort environmentally preferable cleaning products based on the government's ranking of various environmentally pertinent attributes such as VOC content, packaging and potential for skin irritation.

The European Union offers similar purchasing advice at its [Web site](#)

But a local effort in Santa Clara County, Calif. seems to have the most [hands-on information](#) for cleaning managers to review. The government-funded Janitorial Products—Pollution Prevention Project compiled lists of cleaning chemicals and their ingredients a few years ago to determine which were most harmful to workers and building occupants. The project's results are available for review as well as tip sheets regarding correct cleaning procedures to help reduce the risk of chemical misuse. Information regarding the best way to analyze, purchase and handle cleaning chemicals also is available.

Educating housekeeping personnel about using new green cleaning products, and abandoning the ones they've been accustomed to, is a slight transition. But with time, it can work. Dimson suggests a manager explain why the products are considered healthier.

"They think a room should be left smelling like lemon or pine," he says. "Late-night cleaning employees don't even know what they're using and they're using it at a time when there's no circulation of air."

Tedd Saunders, of Boston-based Saunders Hotel Group, owner of three green hotels in Boston, agrees. "The biggest challenge is changing perceptions," he says, especially room attendants who have worked at the hotel for 20 years or more.

The hotel group started riding the green-cleaning wave after Green Seal and the Toxic Use Reduction Institute used its hotels for a field test. They tried using 100 percent organic cotton towels and tested green-cleaning chemicals.

Fifty-seven housekeepers in the Saunders Hotel Group now clean daily as part of a "Green Team." The hotels strive to eliminate portion-control packaging, and instead buy concentrates in bulk, which they prepare at a mixing station. The chemical is then poured into refillable spray bottles and placed on hotel cleaning carts. Also gone are the days of trial-sized beauty products for guests to take home after their hotel stay: Saunders Hotel Group is the first hotel in the world to design and install wall-mounted shampoo and soap dispensers, says Saunders.

There was a lot of employee skepticism at first, Saunders says, because the cleaning chemicals were lighter in color, leading some to

believe that they weren't as strong. He says a moment of success was reached when managers realized that the most effective way to educate staff was to have them use the products in their own homes, which helped cause a ripple effect of interest in the new items.

When planning a green-cleaning program, Saunders suggests polling several departments in an organization.

"There's a lot of good stories about hotels where the engineer is just really passionate about reducing an impact on the environment," he says. Likewise, a purchasing employee might know where to get good prices on recycled packaging or bulk containers.

Justifying the investment

Cost savings for implementing a green-cleaning program can vary, and are hard to calculate when factoring in issues like recycling and water conservation. Griffin advises hoteliers to do a complete inventory of all cleaning products, and figure how much each costs per ounce to use. The Green Hotels Association guarantees its members will save more money than the membership cost which ranges from \$50 to \$500 depending on the size of the hotel.

Managers also should factor into their savings the reduced cost of recyclable products or chemical containers, says Schifano, of Wasteworks. "There's enormous value," he says. "You don't pay for what you throw away."

Yellowstone National Park is one green-cleaning financial success story. About 130 different cleaning products were replaced with nine when the park's management decided to follow green-cleaning guidelines. Yellowstone now spends a third less than it used to on cleaning products, and often buys in bulk and in concentrate. Lincoln, Neb.-based The Clean Environment Co.'s products are used at Yellowstone. A list of the cleaning chemicals Yellowstone advises other companies to avoid is published [online](#).

While some people believe green products cost more than other cleaning options, the Saunders Hotel Group found that the eco-friendly products they use cost the same as traditional cleaners.

Ashkin, of Healthy Housekeeping Solutions, adds that facilities that are on the verge of placing occupants at risk (due to not spending enough on cleaning needs) can only save money by adopting green-cleaning initiatives.

“Doing good cleaning requires them to invest more in good equipment, repairs and maybe good personnel,” says Ashkin. “But these days, green cleaning programs really are cost neutral.”

Kristine Hansen frequently covers the cleaning industry for business publications.

Educational Facilities Receive a Green Cleaning Boost

Educational facilities are getting a good, hands-on education in green cleaning, thanks to three recent federal initiatives.

The U.S. Congress recently passed the Elementary and Secondary Education Act, which examines impacts on a child's healthy environment. Also, the Environmental Protection Agency's "Tools for Schools" program keeps a close eye on pupil and teacher health in the classroom.

Passed by the U.S. Senate in June, the Children's Environmental Protection Act of 2001 (S. 855) requires schools to have pest management plans in place and to tell parents at least twice a year when and where pesticides will be applied in buildings or on school grounds. The bill also suggests schools look at sanitation, structural repair and other strategies to combat pests.

Public pressure (from parents and community members) is one stimulus for a green-cleaning housekeeping change. “School systems are very concerned about kids. But they also are very concerned about it because they're public entities,” says Stephen Ashkin, president of Healthy Housekeeping Solutions. “Creating a green and healthier indoor environment has shown to improve the capacity of innovation.”

Ashkin lists several school districts that have embraced green-cleaning practices: Massachusetts Hospital School, a state-run residential hospital for people with disabilities; Los Angeles Unified School District (which has about 1,000 buildings); and Pittsburgh (Pa.) Public Schools (a 96-building school district). Cleveland received a large grant in 2001 to green its schools. In Pittsburgh, five local universities and two federal agencies spearheaded a similar project.

Of all 50 states, New York and Maryland have the most legislation concerning healthy schools, says Ashkin. The

Maryland State Department of Education only has 24 school systems, which allows the state to have much more impact, get things done, and pioneer new things. In New York, a strong lobbying presence from the Healthy Schools Network helped find allies with state lawmakers.

USGBC Leads commercial facilities into a new, green era

The private commercial sector has shown an interest in green cleaning, as part of a larger green/energy efficient trend. The U.S. Green Building Council (USGBC) has been testing operational and maintenance procedures as a follow up to its LEED (leadership, energy and environmental design) rating system released last year.

The LEED system provides indoor and outdoor environmentally friendly guidelines for architects and building planners for new construction or renovations. But the organization soon realized that once built, some buildings need specific upkeep to maintain a green status, says Paul von Paumgarten, a member of the USGBC's LEED steering committee. Myriad existing buildings, where renovations aren't an option, also need guidelines to help turn them into more environmentally friendly facilities.

"It's a national trend — we're seeing a tremendous increase and interest in green buildings," says von Paumgarten, who also is director of energy and environmental affairs for Johnson Controls, a Milwaukee-based facility-management firm which uses green cleaning in some of its own buildings. "Indoor chemical and pollutant controls is an area the council looks at very closely, including using environmentally friendly cleaning chemicals," he says.

"Get on the bandwagon," von Paumgarten says to housekeeping decision makers. "This is a mega trend that's going to continue. Don't fight it. Just do it."

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